REMARKS

In the non-final Office Action, dated May 17, 2007, the Examiner rejected claims 1-5, 7-10, 12, 14-21 and 34 on the ground of non-statutory obviousness type double patenting; rejected claims 23-28, 31 and 32 under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 6,788,898 (hereinafter "BRITZ"); and rejected claims 1-22, 29, 30, 33 and 34 under 35 U.S.C. § 103(a) as allegedly being unpatentable over BRITZ in view of U.S. Patent No. 7,190,672 (hereinafter "WHITEHILL").

By way of this amendment, Applicant has amended claims 14-22 to improve form. Claims 1-13 and 23-34 have been canceled without prejudice or disclaimer. New claims 35-59 have been added. No new matter has been added by the present amendment. Claims 14-22 and 35-59 are pending. Applicant respectfully traverses the rejection of the claims under 35 U.S.C. § 102 and 35 U.S.C. § 103.[1]

In paragraph 2, the Office Action rejects claims 1-5, 7-10, 12, 14-21 and 34 on the ground of non-statutory obviousness-type double patenting as allegedly being unpatentable over claims 1-10, 12, 14-20 and 40 of co-pending Application No. 10/715,738. While not agreeing with the Examiner's rejection, but merely to expedite prosecution, Applicant submits herewith a terminal disclaimer. In view of this timely filed terminal disclaimer, withdrawal of the rejection on the grounds of non-statutory obviousness-type double patenting is respectfully requested.

In paragraph 4, the Office Action rejects claims 23-28, 31 and 32 under 35 U.S.C. § 102(e) as allegedly being anticipated by BRITZ. These claims have been canceled by the present amendment. The rejection of these claims under 35 U.S.C. § 102 should, therefore, be moot.

[1] As Applicant's remarks with respect to the Examiner's rejections are sufficient to overcome these rejections, Applicant's silence as to assertions by the Examiner in the Office Action or certain requirements that may be applicable to such rejections (e.g., whether a reference constitutes prior art, motivation to combine references, assertions as to dependent claims, etc.) is not a concession by Applicant that such assertions are accurate or such requirements have been met, and Applicant reserves the right to analyze and dispute such assertions/requirements in the future.

In paragraph 6, the Office Action rejects pending claims 14-22 and 34 under 35 U.S.C. § 103(a) as allegedly being unpatentable over BRITZ in view of WHITEHILL. Applicant respectfully traverses.

Amended independent claim 14, for example, recites a method that includes sending a request message to establish an optical link from a first node to a second node via electrical signals over an electrically transmissive medium; receiving a request granted message from the second node via electrical signals over the electrically transmissive medium, where the request granted message includes data associated with a location of the second node, and a velocity and/or an acceleration of the second node; establishing the optical link between the first node and the second node based on receipt of the request granted message and based on the location and the velocity and/or the acceleration of the second node; and transmitting data between the first node and the second node via optical signals over the optical link. Neither BRITZ nor WHITEHILL, either singly or in any reasonable combination discloses or suggests the combination of features recited in amended claim 14.

For example, BRITZ and WHITEHILL do not disclose or suggest, among other features, receiving a request granted message from a second node that includes data associated with a location of the second node and a velocity and/or an acceleration of the second node and establishing an optical link between a first node and the second node based on the location and the velocity and/or acceleration of the second node, as recited in amended claim 14.

BRITZ discloses multiple nodes, each of which includes an outdoor unit (ODU) 40 or 52 that can selectively communicate with one other ODU's via a radio frequency (RF) channel 36 or a free space optical channel 34 (see column 3, lines 1-10; FIG. 2). The free space optical channel 34 may be used for data communication when conditions permit, and the RF channel 36 may be used as a redundant back-up such as, for example, when the optical channel is unavailable or obscured (e.g., by fog) (see column 3, lines 27-37). In the event that fog blocks the optical channel of the link served by an ODU, the ODU's transceiver 46 communicates with a controller 20 (depicted in FIG. 2) which in turn sends commands via radio link to local controller 58 of the ODU (see column 4,

lines 41-44). Based on the commands, the local controller 58 may selectively switch from communicating over the optical channel to communicating over the RF channel (see column 4, lines 44-48). Commands received from controller 20 via transceiver 46 may re-point the telescope used to communicate via the optical channel or the RF unit used to communicate via the RF channel (see column 4, lines 48-51). BRITZ, therefore, discloses a node that may selectively communicate with another node using either an optical channel or an RF channel.

WHITEHILL discloses a mobile wireless ad-hoc communications network (see abstract) in which one node transmits a Request-to-Send message to another node and then may communicate via a channel with the other node when a Clear-to-Send message is received from the other node (see column 1, lines 25-34). WHITEHILL, thus, discloses the use of the CSMA/CA protocol specified in the IEEE802.11 standard for establishing communication between two nodes.

In view of the discussion above, the combination of BRITZ with WHITEHILL may disclose the use of the CSMA/CA protocol for communicating with another node using an optical or RF channel. BRITZ and WHITEHILL, however, do not disclose, suggest, or even mention sending a message from a second node to a first node that includes data associated with a location of the second node, and a velocity and/or an acceleration of the second node, and the establishment of an optical link with the second node based on the location and velocity and/or acceleration, as recited in amended claim 14. Therefore, since BRITZ and WHITEHILL do not disclose or suggest the combination of features recited in amended claim 14, withdrawal of the rejection of this claim under 35 U.S.C. § 103(a) is respectfully requested.

Claims 15-21 depend from claim 14. Withdrawal of the rejection of these claims is requested for at least the reasons set forth above with respect to claim 14.

Amended independent claim 22 recites a first node in a network that includes a non-optical transceiver configured to: send a request message to establish an optical link from the first node to a second node via electrical signals over an electrically transmissive medium, where the second node comprises a mobile node, and receive a request granted message from the second node via electrical

signals over the electrically transmissive medium, where the request granted message includes data associated with a pitch, roll and yaw associated with the second node. The first node further includes an optical subsystem configured to: establish the optical link between the first node and the second node based on the pitch, roll and yaw associated with the second node, and transmit data between the first node and the second node via optical signals over the optical link. Neither BRITZ or WHITEHILL, either singly or in any reasonable combination, disclose or suggest the above-combination of features.

For example, BRITZ and WHITEHILLL do not disclose or suggest, among other features, a non-optical transceiver configured to receive a request granted message from a mobile node via electrical signals over the electrically transmissive medium that includes data associated with a pitch, roll and yaw associated with the mobile node and an optical subsystem configured to establish an optical link with the mobile node based on the pitch, roll and yaw associated with the mobile node, as recited in amended claim 22. As discussed above with respect to claim 14,

BRITZ discloses a node that may selectively communicate with another node using either an optical channel or an RF channel, and WHITEHILL discloses the use of the CSMA/CA protocol specified in the IEEE802.11 standard for establishing communication between two nodes. The combination of BRITZ with WHITEHILL, therefore, may disclose the use of the CSMA/CA protocol for communicating with another node using an optical or RF channel. BRITZ and WHITEHILL, however, do not disclose or even suggest a non-optical transceiver configured to receive a request granted message from a mobile node via electrical signals over the electrically transmissive medium that includes data associated with a pitch, roll and yaw associated with the mobile node and an optical subsystem configured to establish an optical link with the mobile node based on the pitch, roll and yaw associated with the mobile node, as recited in amended claim 22. Therefore, since BRITZ and WHITEHILL do not disclose or suggest the combination of features recited in amended claim 22, withdrawal of the rejection of this claim under 35 U.S.C. § 103(a) is respectfully requested.

New claims 35-41 recite a method that includes receiving a first mobile node's location and velocity from the first mobile node via a non-optical channel; pointing a steerable optical aperture towards the first mobile node based on the received location and velocity; and communicating with the first mobile node using an optical channel via the steerable optical aperture. Neither BRITZ nor WHITEHILL, either singly or in any reasonable combination, discloses or suggests the combination of features recited in claims 35-41.

New claims 42-46 recite a method that includes receiving data from a first node via a first optical channel at a second node, where the second node is a mobile node; establishing a second optical channel with a third node from the second node based on a location and velocity of the second node; and forwarding the data from the second node to the third node using the second optical channel. Neither BRITZ or WHITEHILL, either singly or in any reasonable combination, discloses or suggests the combination of features recited in claims 42-46.

New claims 47-50 recite a method that includes receiving a three dimensional velocity vector and a three dimensional acceleration vector, associated with movement of a first mobile node, from the first mobile node via a non-optical channel; predicting a trajectory of the first mobile node based on the three dimensional velocity vector and the three dimensional acceleration vector; pointing an optical aperture towards the first mobile node based on the predicted trajectory; and communicating with the first mobile node using an optical channel via the optical aperture. Neither BRITZ nor WHITEHILL, either singly or in any reasonable combination, discloses or suggests the combination of features recited in claims 47-50.

New claims 51-55 recite a method that includes learning of a presence of a neighboring first mobile node in an ad-hoc network by receiving a first notification message from the first mobile node via a non-optical channel, where the first notification message includes an identifier of the first mobile node and a location of the first mobile node; sending, via the non-optical channel, a first request message to establish an optical channel with the first mobile node; receiving a first request granted message from the first mobile node via the non-optical channel responsive to the first request message; pointing a steerable optical aperture towards the first mobile node, based on the

location of the first mobile node and receipt of the first request granted message, to establish the optical channel; and communicating with the first mobile node via the optical channel and the steerable optical aperture. Neither BRITZ nor WHITEHILL, either singly or in any reasonable combination, discloses or suggests the combination of features recited in claims 51-55.

New claims 56-59 recite a network node that includes a radio-frequency receiver configured to receive one or more first radio-frequency messages that include first data describing a movement of a first mobile node; and an optical system configured to: point a first optical aperture towards the first mobile node based on the first data, and communicate with the first mobile node via a first optical channel using the first optical aperture. Neither BRITZ nor WHITEHILL, either singly or in any reasonable combination, discloses or suggests the combination of features recited in claims 56-59.

In view of the foregoing amendments and remarks, Applicant respectfully requests the Examiner's reconsideration of this application, and the timely allowance of the pending claims.

Applicant believes no fee is due with this response other than as reflected on the enclosed Amendment Transmittal. However, if a fee is due, please charge our Deposit Account No. 18-1945, under Order No. BBNT-P01-090 from which the undersigned is authorized to draw.

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Respectfully submitted,

By_____

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